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| 6. AUTHOR(S)<br>Dr. Stephen Cozza<br><br>E-Mail: scozza@usuhs.mil                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                  |                          |                                      | 5d. PROJECT NUMBER                                       |                                            |
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| 14. ABSTRACT<br>The present study will examine various factors that influence the military family bereavement process. The information obtained will inform future prevention and intervention strategies to promote military family health and resilience. Thus far, during Year 1, all study researchers and staff have been hired (except one field researcher and a biostatistician). The study design and methodology have been finalized. We have also obtained IRB approval for Prong 1 (both USUHS and HRPO) and Prongs 2-4 (USUHS, with stipulations). We have begun preliminary data analysis of national datasets and are planning to present final results in several outlets. Finally, we have successfully generated strong interest from a number of community and military organizations who have provided letters of support and will assist in advertising for and recruitment of study participants.                                   |                  |                          |                                      |                                                          |                                            |
| 15. SUBJECT TERMS<br>military bereavement; grief; coping; resilience; physical health; psychological health                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |                          |                                      |                                                          |                                            |
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| a. REPORT<br>U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | b. ABSTRACT<br>U | c. THIS PAGE<br>U        |                                      |                                                          | 19b. TELEPHONE NUMBER (include area code)  |

## INTRODUCTION:

Since 9/11/2001 over 16,000 uniformed service members have died on active duty status impacting potentially over 160,000 survivors [1]. Although the study of bereavement in the civilian population is robust, there is little empirical research on the impact of the death of a service member on military families, especially in the unique case of death in combat. The present study will examine various factors that influence the military family bereavement process, including pre-existing individual family member characteristics, pre-existing family unit characteristics, and characteristics of the death as they relate to bereavement outcomes. Information about current psychological and physical health, current grief reactions and current access to resources and support will be assessed to determine how these factors affect bereavement. The project will recruit up to 4500 (will stop when reach target enrollment: 3000) bereaved adult family members (i.e., parents, spouses & siblings) participants to complete a survey about their bereavement experience (Phase 1). Participants who would like to participate further will be invited to complete an interview and additional set of questionnaires about their experiences related to their family member's death (Phase 2). During Phase 2, two target populations will be recruited and assessed at three time points. Families (including children) who have experienced a death any time post-911 will be recruited for Phase 2a (Existing Family Bereavement Group, up to 600 recruited, will stop when reach target n = 400) and families (including children) who have been newly bereaved (within the past 6 months) will be recruited for Phase 2b (Prospective Family Bereavement Group, up to 150 recruited, will stop when reach target n = 100). The Phase 2a population will be assessed at study entry and at two additional time points, one year and two years later. Phase 2b population will be assessed at study entry (within 6 months following the death), and at 13 months and 25 months following the death. Phase 2b population data will provide prospective data about bereavement and allow identification of early concerns and patterns of help-seeking by bereaved families. An optional part of the study for all participants in either Phase 1 or 2 is to provide a bio-sample of saliva collected by mail which will be analyzed for candidate genes associated with risk and resilience to outcomes following the death of a family member. Results of this study will elucidate both the challenges that military families face as well as unique strengths they possess, thus creating a better understanding of military surviving families' needs. This information can then be used to design prevention and intervention strategies that promote military family health and resilience.

**BODY:** Below is a summary of the major activities undertaken by project team members during the last 12 months organized by the timeline in the Schedule of Work (SOW):

1. During the last week of February 2012, we submitted a revised SOW based on recent activity relevant to IRB/HRPO submission deadlines and await its approval. This revision estimates that data collection for Prongs 2-4 will start by May 1, 2012.
2. **Advisory Boards:** A kick-off Advisory Board meeting was held which included nationally known academic experts in the field of bereavement as well as key figures and organizations who are active in the area of military families and bereavement (e.g., TAPS, MCEC, NMFA). Extended minutes of that meeting were compiled and shared with the group. Key areas of discussion included finalization of study design, methodology considerations and issues related to recruitment of this population into the study.

The plans for two additional Advisory Boards are underway. There will be a VIP Advisory Board which will consist of important individuals from the community involved in bereavement issues. The second (Survivor Advisory Board) will consist of selected family members who have lost a service member. In July 2011, research team members met with Mrs. Deborah Mullen (wife of Chairman of Joint Chiefs of Staff, Admiral Michael Mullen) who will be on VIP Advisory Board. We are in the process of contacting other people to create these Advisory Boards.

We are also engaging ad hoc community advisory boards for the purpose of providing much needed family member input into the study. The most recent was convened on March 13, 2012. It consisted of nine panelists of survivors and professionals who work with military children who provided feedback about an instrument that we are developing with collaborators at UCLA to assess risk and protective factors for grief in military children. We will use this instrument in the study once it has been validated.

3. **Recruit/Hire personnel (Prong 1-5):** Successful recruitment and hiring was accomplished for the project's Senior Field Researcher (start date, April 12, 2011) and Project Director/Research Psychologist (start date, July 5, 2011). In addition, Dr. Claudio Ortiz who has played a lead role in our Sesame Workshop funded bereavement study evaluating the "*When Families Grieve*" Muppet DVD series joined the Bereavement Study team. We have also hired four site interviewers (start dates: March 15 and April 1, 2012) and are in the process of reviewing resumes for the 5<sup>th</sup> and final site interviewer position. We have also obtained CVs for the Data Manager/Biostatistician. We interviewed one candidate and are in the process of obtaining and reviewing additional resumes.
4. **Begin training personnel to collect data (Prongs 1-5):** The Senior Field Researcher and Project Director/Research Psychologist completed the required CITI training and other researcher responsibilities background requirements shortly after being hired. All research study team members have been thoroughly trained on the components of the study, its methodology and design.

The Senior Field Researcher was trained in data retrieval of the TAPS database on 15 June 2011. TAPS dataset reviewers have been trained in case material review and code book development.

The bereavement study team is developing a training program for site interviewers. Newly-hired site interviewers will come to USUHS for training (April 23-27, 2012) to familiarize them with the research protocol and prepare them for recruiting and consenting of subjects, interviewing, administering questionnaires, collecting data, and conducting focus groups. They will attend training talks (about grief, interviewing children, military casualty affairs, etc.), participate in role play exercises and engage in group discussions.

5. **Obtain human use approvals—IRB and HRPO (Prongs 1-5):** This study has been conceptualized as three distinct protocols in order to facilitate IRB approval and allow us to initiate parts of the project as quickly as possible. We obtained approval of the first protocol for Prong 1 (Military Family Bereavement: Study of existing data) from the USU IRB and from HRPO. Another IRB proposal for Prongs 2-4 (Military Family Bereavement: National questionnaire, interview, assessment and biomarker data collection) was submitted to the USUHS IRB on Jan 23, 2012. It was forwarded to the USUHS IRB review committee for review. The meeting took place on March 8, 2012 and the protocol was "approved, with stipulations". We received the modifications on 3/21/12 and have resubmitted the modified protocol. Once approved, we will then forward the protocol to HRPO. The last protocol (Prong 5) was finalized and submitted to USUHS at the end of March 2012.
- 6.
7. **Develop mechanisms for recruiting participants (Prongs 1-5):** In addition to the recruitment work that occurred during the Advisory Board meeting, the PI and Senior Field Researcher have met with key personnel in the Army Survivor Outreach Services (S.O.S.) and the DOD's Office of Casualty Affairs to discuss obtaining official records of military deaths and survivor information. During Quarter 4, Dr. LaMorie gave a number of informational presentations about the study to: The Student Veteran's

Association at George Washington University; Army Survivor Outreach Services Program (Installation Management Command) in Texas; Casualty and Mortuary Affairs Operations Center; National Cemetery Administration.

**Prong 1:** The research team obtained national level data on service member death and their survivors. Specifically, Tragedy Assistance Program for Survivors (TAPS) has given permission for researchers to access and retrieve subject information from their database (representing a subset of the total population who seek help from TAPS). We have obtained this dataset and a system for coding the TAPS qualitative data has been initiated. TAPS data set reviewers are developing a code book for qualitative data analysis of case notes.

As a result of a visit and presentation by the research team to DoD's Casualty Affairs Board in Fredericksburg, MD, we received broad support of the project. The research team also submitted a request for and later obtained a dataset consisting of specific information about the entire population of military deaths from the DOD's Defense Manpower Data Center (DMDC). Analysis of this dataset has begun and a draft of a manuscript about this data has been started. We plan to submit it to *Military Medicine* within the next six months. In addition, an abstract about these data has been submitted to the International Society for Traumatic Stress Studies for presentation at the annual meeting in November.

Discussion with Bereavement study team members and a collaborator (Alyssa Mansfield, Ph.D., MPH , National Center for PTSD, Pacific Island Division) has begun about obtaining healthcare utilization and diagnostic data about bereaved military dependent family members. These data will allow us to determine how bereavement affects healthcare utilization and healthcare outcomes. Once the plan is finalized, we will submit it to the IRB as an amendment to Prong 1 in accordance with our existing Statement of Work.

**Prong 2:** USUHS IRB committee met to review and discuss this protocol in March, 2012. We received preliminary approval of Prongs 2-4 with stipulations. These stipulations were addressed and resubmitted to the IRB for review prior to the end of this annual review period. We have existing relationships with PsychData (to collect data online) and Digital Design (to develop web pages and web based questionnaires) and they have agreed to assist us in this project. The list of study constructs of interest have been determined, and review and approval of appropriate corresponding instruments and measures is being finalized. The extensive process of selecting and reviewing existing assessment instruments and creating new questions to measure study constructs has been completed and a final list of these measures has been generated. In addition, our study informational website has been developed and is available online at <http://www.militarysurvivorstudy.org/>. This website will provide information about the study to the public and eventually (when IRB approvals are obtained) will serve as the portal to the online data collection instruments. A Facebook page has also been designed to disseminate information about the study. Once we obtain IRB approval for Prongs 2-4, we will commence recruitment.

**Prong 3:** We developed a sophisticated set of criteria to guide the selection of four communities in which more targeted-recruitment of survivors will take place. We used zip codes obtained from TAPS and frequency of deaths/state from SOS to create frequency charts and maps that depicted areas of the country with the largest number of survivors. These numbers and maps informed our decision to use San Diego, CA area; San Antonio, TX area; Fayetteville/Wilmington, NC area; Chicago, IL area as regions for targeted recruitment. Site interviewers will be stationed in each of these areas (with two interviewers in TX). As stated above, four out of five site interviewer positions for each of these regions have been filled. Once site interviewers have been trained and IRB/HRPO approval has been obtained, recruitment and data collection will commence for Prongs 3 & 4.

As above, the list of instruments to assess study constructs in this Prong was finalized after extensive review. The final list was submitted with the protocol to the IRB for approval.

**Prong 4:** As above, recruitment and data collection will commence once site coordinators have been trained and IRB/HRPO approval has been obtained.

**Prong 5:** We have obtained letters of support from various community and military organizations who will allow us to conduct national focus groups at their meetings. Opportunities for focus groups include: TAPS Regional Seminars, TAPS Good Grief Camps and TAPS community partner survivor support groups. In addition, we have identified American Gold Star Mothers and Gold Star Wives of America as additional groups with which to conduct focus groups. One of our research team members plans to attend the annual survivor conference for Gold Star Mothers. During Quarter 3, two of our team members met with Gold Star Wives of America to discuss and promote the study and answer any questions that the members had. Finally, we also have support from Snowball Express, Compassionate Friends, MCEC and NMFA.

After extensive review of the literature and refining a set of focus group questions, an IRB protocol for Prong 5 was submitted in March 2012 and we await word on its approval. Data collection will begin after the IRB protocol approval has been obtained.

### **Additional accomplishments:**

During Quarter 3, bereavement study team members attended the Workshop for the Scientific Study of Military Children and the annual meeting of the International Society for the Study of Traumatic Stress. These two meetings enabled promotion of the study and facilitated discussion with colleagues about theoretical and practical issues regarding the study. This has led to several phone conferences with various expert consultants/colleagues (Chris Layne, Julie Kaplow, Alyssa Mansfield) who have provided critical information about specific assessment instruments that we have considered for Prongs 2-4 of the present study.

We have worked with colleagues (Chris Layne at UCLA and Julie Kaplow at University of Michigan) to develop a Bereaved Military Youth version of their Bereavement Risk and Resilience Index (BRRI). We developed questions and convened a panel of nine content experts (e.g., survivors, professionals who work with bereaved individuals) to provide feedback on the measure. This panel met on March 13, 2012 (quarter 4). We will be discussing next steps with Chris Layne and Julie Kaplow on March 20, 2012 to further refine the measure. We intend to include the final version of this measure in Prongs 3 & 4 of our study.

### **KEY RESEARCH ACCOMPLISHMENTS:**

Analysis of data (Prong1) has not yet been completed and data (Prongs 2-5) has not yet been collected.

### **REPORTABLE OUTCOMES:**

Cozza, S. J. (November 2011). Combat Death: Military Family Bereavement. Paper presented at the annual meeting of the International Society for Traumatic Stress Studies, Baltimore, Maryland.

Cozza, S.J., Harrington-LaMorie, J., Fisher, J. E., Ortiz, C.D., Fullerton, C. S., & Ursano, R.J. (March 2012). The Impact of a Service Member Death in Military Families: A National Study. Poster presented at the annual meeting of The Association for Death Education and Counseling, *The Thanatology Association*, Atlanta, Georgia.

Fisher, J.E., Cozza, S., Harrington-LaMorie, J., Ortiz, C.D., Fullerton, C.S. & Ursano, R. J. (November 2012). Demographics of Deceased Service Members: Understanding those who served and their families. Paper submitted to be presented at the annual meeting of the International Society for Traumatic Stress Studies, Los Angeles, California.

### **CONCLUSION:**

Progress has been made on a number of fronts for this project. Hiring of personnel, development of the study design, analysis of archival data, and preparation and training of field researchers are the main areas in which

efforts have been focused. In combination, these efforts provide a solid foundation for the study to progress to the next steps (i.e., recruitment of participants and data collection).

## **REFERENCES:**

1. US Department of Defense, (2011). Military Casualty Information, [Casualty Summary]. Retrieved from [http://siadapp.dmdc.osd.mil/personnel/CASUALTY/state\\_oef\\_oif.pdf](http://siadapp.dmdc.osd.mil/personnel/CASUALTY/state_oef_oif.pdf)

## **APPENDICES:**

No appendices are attached.

## **SUPPORTING DATA:**

None included.